2:Newcomb E-4, 5 (1951-1952) 1956
NM7 Delaware NM7

stamp ornamentation of basketry in historic times, possibly a diffusion from the Europeans.[180]

Boats.—Canoes were of two types, a solid dugout canoe and one of birch or other bark. The dugouts were made of tulip poplar, cedar, sycamore, and probably other suitable woods, which were hollowed out by fire.[181] When they wished to venture out to sea or into rough water, two canoes were lashed together. Sails on these vessels were reported, but seem to be post-European.[182] Zeisberger described the manufacture of the eighteenth-century bark canoe, which probably represented the earlier technique:

> These canows are fashioned of one piece of bast, the outer side of which is turned inward, both ends sharply pointed and securely sewn with bast, the inside being stretched out by a ribbing of bent wooden rods, which keeps the canow in its proper form. These canows are so light upon the water that they easily glide away from under the feet of one unaccustomed to them when attempting to stand. ... To make one they choose a tree according to the size of canow desired and peel the bark off carefully so that there may be no rent. If a canow gets out of repair or is punctured... the latter know how to repair it by securing a patch of bast over any opening. Besides, there is a kind of elm-wood bast which they crush or pound fine and which is of a sticky consistency, serving them in place of tar, to keep their canows water-tight so that they do not leak.[183]

These canoes were made of elm, black oak, and hickory bark.[184] Harrington said that for temporary use "six or more logs lashed together in the form of a raft with bark withes carried people and baggage across waters or down streams as required."[185]

Wampum.—The subject of wampum comes up in several different contexts, since its uses ranged all the way from individual ornamentation to negotiatory belts in peace and war. I shall merely examine its form and manufacture since its sociopolitical implications have been discussed fully by Speck and Snyderman.[186] Virtually all the early documents mentioned the possession and use of wampum (often called zeewan or sewan) by the Delawares. Lindestrom, for example, said they had "oblong stones, with holes drilled through them, and threaded on strings. . .one kind [is] black-blue, the other kind white.... In size they are about the length of a wheat kernel and somewhat thicker."[187] He added that it was made by specialists, but says no more on the subject.[188] Fortunately, however, Burggraf has reconstructed the manufacture of wampum from knowledge gained through the material found in Indian workshops on Long Island. The white wampum was made solely from "the central stock of both *F. carica* and *F. canaliculatas*".[189]

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[180] Speck, 1947, pp. 17-19.
[181] Holm, 1834, p. 130; De Laet, 1909, pp. 38, 57; Van der Donck, 1909, p. 301; Mahr, 1954, pp. 382-83.
[182] Lindestrom, 1925, p. 237.
[183] Zeisberger, 1910, p. 33.
[184] Zeisberger, 1776, p. 33; Brinton, 1890, p. 185; Harrington, 1913, p. 223; Mahr, 1954, p. 382.
[185] Harrington, 1913, p. 223.
[186] Speck, 1919; Snyderman, 1955.
[187] Lindestrom, 1925, p. 229.
[188] *Ibid.*, p. 230.
[189] Burggraf, 1938, p. 54.

2:Newcomb E-4, 5 (1951-1952) 1956
NM7 Delaware NM7

The first stage in the course of manufacture was to break away all the outer whorls, leaving only the spiral center-stock. Next, with a chip of stone or a knife, the spire was cut off by sawing or notching around its circumference at the point where the first bead would be started. After this grooving had been carried far enough, the waste portion was broken off and discarded. In some cases this cutting seems to have been accomplished wholly with some abrasive implement, usually a bit of sharp-grained red sandstone. The fresh shiny surface of the interior of a periwinkel, as the shells are called locally, is of surprising hardness, and for this first step the quickest method would be employed. In severing finished beads, great care was shown and the narrow groove was carried deep enough to prevent any breakage in detaching the completed specimen....[190]

Black wampum was made from the Quahog (*Mercenaria mercenaria*), and its manufacture was more difficult:

The first step was to break off the anterior end of suitable dark-colored valves. Many fragments were never worked beyond this stage, most generally due to an insufficient thickness of the purple shell. Then, with some light hammer and perhaps a sort of percussion flaker, the thin edges of this bit of shell were chipped away leaving a slightly curving "stick" of purple.... The next step was to grind away the chipped edges, which could be easily accomplished with the sandstone "abradors" recovered.[191]

This tubular type was of late origin, replacing a disc type after 1620.[192]

[190] Burggraf, 1938, p. 56.
[191] *Ibid.*, p. 57.
[192] Speck, 1919, p. 4; Burggraf, 1938, p. 53.

8: Lindeström T-5 (1654-1655) 1925
NM7 Delaware NM7

436 a thick straw, and the length in proportion to their thickness; larger or smaller, they are not used. [They are] very smooth and even at the ends. There is also a streak on them like copper color, which the kernel by nature contains, from which the stones are made; namely of the kernel which runs whirl-like inside of the whooping cough bowls, which the wet nurses use to scrape off and give the little children for whooping cough, which is found in great abundance in New Sweden, both white, black and red.[5] Of this mentioned kernel
● [427] the savages turn and grind these stones and money, and special savages are designated and appointed for this, who make this money, and one person is not able to make more than about 6 to 8 *styvers* a day.[6]

435 In valuing these moneys we also count an ell of red, black-blue sewan for 1 ducat and 1 ell white sewan for one *riksdaler*. But otherwise they are mostly reckoned in Dutch florins and *styvers*, as stated above, one florin at 20 *styvers*.[7] These[8] moneys are as well made as any glass cutter could cut them of glass, cut and drilled through at their edges.[9] When the money through old use has been

[5] A nature medicine based on the superstitious belief that these scrapings will "cure the cough."

[6] Cf. Hodge, *Handbook*, II, 905.

[7] See Johnson, *Swedish Settlements*, I, 41.

[8] Lindeström has *Aucilke*, which.

[9] *Uthå sijne kanter afskärande och genomdrillande.* The passage is obscure. *Afskärande* and *genomdrillande* are present participles and perhaps Lindeström means *af skärande och genomdrillande*, in which case the passage would read: These moneys are as well made as any glass cutter could cut them of glass at the edges, through cutting and drilling.

In this connection Williams says: "Before they had awle blades from Europe, they made shift to bore this their shell money with stones." *Key*, 130.

[P. 11, B]

172 tion of the face. The hole in the dorsal
323 surface (shown in Plate 4, No. 2) is con-
532 nected with the holes indicating the eyes. No explanation for the purpose of this dorsal hole or indeed of the entire specimen can be attempted at this time.

Bone

172 Bone and antler artifacts do not appear
●321 to be abundant on Minsi sites. On occa-
41 sion, the bone awl, antler flakers of cylindrical form, combs, turtle-shell cups, perforated deer phalanges, perforated needles, antler picks, beaming tools, and short bone tubes, probably used as ornaments, are found.

Shell

At the present time, because of an almost total lack of evidence, (the Bell-Philhower Site report lists one shell bead found by Mr. Charles A. Philhower in a pit of the historical period and worked fragments of conch) the writer is not prepared to discuss the possible incidence of shell artifacts in the prehistoric Minsi Culture. In common with Ritchie ("Bell-Philhower Site", p. 178) he refers the interested reader to the Heye-Pepper report, "Exploration of a Munsee Cemetery" for a description of numerous shell ornaments, etc., from the *historic* Minsi site adjacent to the Bell-Philhower component.

ROUGH STONE

172 Net sinkers are of two well-defined
324 types: flat pebbles with two opposed
227 notches, and sinkers made of thin sheets of stone chipped into circular or rectangular shape with two opposed notches. These 'trimmed sinkers' may have notches formed by chipping, or rarely, by grinding. (Plate 5, No. 3, shows notched flat pebble; Plate 5, No. 1, shows trimmed sinker with chipped notches; No. 3 of the same plate is a trimmed ground-notch sinker.)

Sinkers of both types may range in size from an inch to six or seven inches in